Nicktoons RACING Computer Setup & Repair Information

When restoring a Hard Drive, turn off the Watchdog by pressing & holding the BOTTOM button on the Audio Amp PCB until the Red LED is on steady (Watchdog Inactive), or just unplug the white 3pin plug from the back of the Computer. Plugging or unplugging this connector while the power is on will not hurt anything. When plugging it in with the power on. It will cause a 'hardware reset' but no damage. The 3 wires are, 1 Yellow +12V, 2 BLK/YEL Ground, 3 Violet Reset. The Yellow & Black are from the computer power supply to power the Audio Amp PCB and light bulbs (control panel & coin door). The Violet is plugged into the motherboards' front panel connector where the Reset Switch would be.

There is a Micro controller on the Amp PCB that reads 4 bits from the parallel port. Whenever Nicktoons is running, it outputs 2 codes on the parallel port. The Watchdog chip (Micro controller) does nothing for the first few minuets after power on (Red LED off), just in case windows decides to run scandisk, before it starts looking for codes. When the Red LED is blinking fast, it is looking for one code, blinking slow, it's waiting for the other. After about 2 minuets of seeing no or wrong codes, the watchdog resets the PC (grounds the Reset pin). When the Red LED is not on steady, pushing the top button will Reset the PC. Pushing the middle button anytime resets the Watchdog Micro controller.

To Restore a hard drive, the PC must 'boot' from the CD Rom. If the PC does not start the 'Nicktoons Racing Restore Disk' after the PC is restarted with the Restore CD in the CD Rom Drive, the BIOS 'Boot Sequence' is not set properly. On computers 2,3 & 4, it is under 'Advanced BIOS', > BootSeq & Floppy Setup , 1st Boot Device must be set to 'CD Rom".

Pressing '2' – Restore the Nicktoons Racing Video Game to Hard Drive C: works very well and quickly (less than 10 mins.). We use it to load new PCs on the line. (If you didn't press 1 'erase hard drive' first, it will prompt you to Erase, just hit Enter).

After the restore process completes, Restore will prompt you to remove the CD and reboot the computer (plugging in the 3pin connector), Ctrl Alt Del, or power off & on. If the computer reboots it self, Restore was not successful, try again with 9, 'Erase and slowly Restore with Verify'. 9 can take 20 to 45 minuets. If you have a bad Hard Drive, it will tell you.

If you disabled the watchdog, please turn it back on by holding the bottom button on the Amp PCB until the Red LED turns off. Then, when Nicktoons is running, Press F1 to enter service mode. The controls must be calibrated before the game is played. In the bottom left of the Adjustments window, are 4 calibrate buttons. Just above them is the 'Diagnostics' button. It opens a window with bar-graphs and indicators for all of the controls. I always calibrate from the Diagnostics window so I can see the smooth action of the controls, in case there is a problem.

Across the bottom of the window select the "Windows" button, (can use the right arrow key). This will open a DOS window. Type 'shutdown' or 'reboot' & press ENTER. Windows does not like having the power shut off!! (a power failure) It is always a good idea to do at least one Shutdown after imaging a hard drive. I have seen cases when Windows decided to run Scandisk at boot up. Because we just turn the game off and not shutdown Windows, Windows will then ALWAYS run scandisk on power up, until you do a Shutdown or Reboot. Shutdown & Reboot do the same thing, except Reboot restarts the game for you.

Setup can be done on a bench. All that is needed is a VGA monitor and a keyboard. Restore boots and runs under Dr DOS from the CD. The restore process partitions, formats and writes the stored hard drive image. Windows XP needs to know the partition size so Restore always partitions the HD to 5 Gig no matter what size the HD is. It will work with almost any HD that the BIOS recognizes (larger than 5 Gig).

The system boots Windows XP Embedded and starts Nicktoons Racing. Nicktoons looks for the USB Dongle, then for the Serial Port connection, and lastly for the Game Port. The Nicktoons RACING program will not run without the Dongle, a race will not start without the Dongle. The Dongle can be plugged into any of the USB ports, even the front panel port if connected.

A Com Port jumper can be made by shorting pins 8 to 4 and 6 to 5 on a 9pin D Sub Connector. The Game Port Driver looks for 4 potentiometers connected to +5V. The 100K pots we use are MIL Spec Parts. We have used pots from 4 different manufactures. The generic # is RV4NAYSD104A If you plug that number into GOOGLE, you get over 50 hits. You can find some cheap sources. In a pinch, a Radio Shack pot will work, for awhile. The Digi-Key # is RV4N104C-ND, not cheap but with a credit card and a phone (1 800-344-4539) you can have them tomorrow. The Game Port driver errors out if it sees any one of the 4 Joystick inputs Open. On the 15pin D Sub connector, pin1 is +5V, 3 is Steering, 6 is Gas, 11 is Brake and 13 is the Shifter. I got both connectors at Radio Shack. Try not to have too much fun!

Common Problems –

Message on screen, 'The controls seem to be unplugged, Please re-plug…'. – Nicktoons only displays this message when any 1 of the Pot circuits goes open. The Steering, Gas, Brake and Shifter are all read as potentiometers. One end of each is connected to +5V, the wipers are each connected to the game port, and the other end is not connected. When this message is displayed, there is a bad connection, or a bad pot. When the problem is fixed, the message goes away.

The marquee lights, the screen says 'NO SIGNAL" and the coin door & button lights are off. This happens when the BIOS settings in CMOS memory become corrupt. When it happens, the computer will not Turn On, or 'Boot Up', until the power button on the front of the computer (left side, bottom, when looking in from the back door) is pressed, requiring a technician to reboot the computer and reset the BIOS. See BIOS settings for specific Computers.

Bad Power Supply, I have good 110V in, computer does not turn on. - Most likely NOT! We have over 4000 games out there using the same PS. We have had less than 2 dozen bad ones! It's a great PS! Unfortunately, these are AXT systems. They are 'Energy Star Compliant'. The Environmental Protection Agency wants computers to turn themselves off to save energy. In the old days, you supply power to a PCB, it comes On. No more! Good power into an ATX PS gives +5V SB (stand by) out on pin 9 of the ATX power connector. The motherboard then signals the PS to turn On if the BOIS tells it to or if the Power Button is pressed. See NTRoldBios (CPU1), or the correct BIOS chart fix the problem.

'Every time I turn on Nicktoons, I have to 'Calibrate' the controls. - Reload software. Disk image is corrupt. If problem persists, restore with 9 - 'Erase and slowly Restore with Verify'. Hard Drive maybe bad, most times, it is not.

The 'Cannot create Direct 3D object' error appears when using old Software on newer Motherboards. All newer Software can run on older Motherboards. Ver 1.07 shipped with over half of all Nicktoons produced. 1.07 & CPU3 is rock solid! I have never heard of a problem with 1.07 & CPU2 (or CPU 1). I don't remember 1.08 at all! Ver 1.09 discovered a 'hardware variation - software conflict' problem with CPU4. On CPU4, in BIOS, LAN & FDC Controller MUST be disabled. And, in Device Manager, Floppy Driver must be 'Disabled', not uninstalled (call for details). Ver 1.10 corrects this. There were a few various versions written for certain customers. Most all versions can be made to run for each/all. Ver 1.11 allows customer specific features to be accessed by all. Software upgrades are encouraged and available by request, you pay shipping.

Windows XP has a special fatal error code for Ultra DMA (blue screen, 'problem detected, Windows shut down'…). On a small number of Nicktoons with Maxtor hard drives, I have seen Windows "HALT" the system. Turning off UDMA in BIOS cures it 100%. I have never seen the error with Western Digital drives. (don't tell my boss), but many games have gone out with Western Digitals, and UDMA Enabled, no problems. Company policy is to Disable UDMA, I would not waste my time... CPU1 with Maxtor, turn UDMA Off!

PARTS

The first 300 games went out with Betson Steering mechs, so you can get parts from Betson/Imperial. All have Betson Wheels & Pedal Assys. The rest use Happ Steering Mechs, all have Happ Shifters. Most of the steering parts are interchangeable between the 2 Mechs.